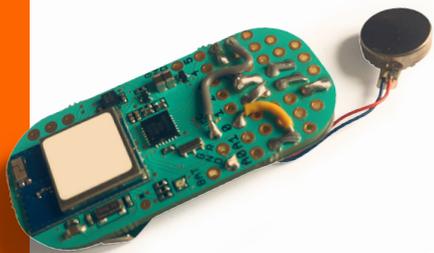


# SNEAKAIR

Fact Sheet



The **Sneakair** prototype is a revolutionary Smart shoe which comprises of a navigation system based on vibration pulses which help users explore new destinations with ease. It works via a vibration module inside the footwear which alerts the wearer to the direction of travel, eliminating the need to refer to a phone or a traditional map for directions.



## The device

The device which is incorporated inside the footwear, transmits instructions to the user via an integrated miniaturised Bluetooth Low Energy module which enables connection to any smartphone in the market. It combines very low energy consumption and optimal scope and resistance to interferences for use in any environment. Electronics have been used to integrate a vibration motor similar to those seen in current smartphones.



## The app

A native iOS has been developed to optimise the mobile telephone energy requirements. The app structure has two main parts:

- > synchronisation module and device control
- > pedestrian navigator

Google Maps and Google Maps Directions API have been used for the pedestrian navigator. The system has been developed to detect user proximity to an intersection through GPS positioning. It then knows in advance which direction to take and the app sends a vibrating signal to the corresponding foot to guide the user along their route.

In addition, a 'wrong turn' detector and route recalculation functions have been incorporated so that if a user gets lost or voluntarily wishes to leave the route, it will be able to guide them back onto the right course towards their final destination.

The app has been prepared to run in the background to so users can keep their phones in their pocket without the need to follow on screen directions.